



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/933,144	08/20/2001	Thomas Schaeck	DE9-2000-0037	6599

7590 11/03/2004

Ronald L. Drumheller, Esq.
94 Teakettle Spout Road
Mahopac, NY 10541

EXAMINER

GIANOLA, JOHN F

ART UNIT	PAPER NUMBER
----------	--------------

2135

DATE MAILED: 11/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/933,144

Applicant(s)

SCHAECK, THOMAS

Examiner

John F Gianola

Art Unit

2135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Claims 1-14 have been examined.

Claims 1-14 have been rejected.

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in Application No. 09/933,144, filed on August 8, 2001.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign mentioned in the description: 'server 56' as shown in Figure 5 and described on page 12. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 'Servlets 70' on Figure 7. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

4. Claim 6 objected to because of the following informalities: the claim contains the following spelling errors: "acces" instead of access and "vertice" instead of vertex. Appropriate correction is required.

5. Claim 7 objected to because of the following informalities: the claim contains the follow grammar error: "a feedback information." Appropriate correction is required.

Specification

6. The disclosure is objected to because of the following informalities: numerous spelling and grammatical mistakes. Examples include the use of "these objects" when referencing a single "object" (see page 2, Section 1.3 "Objects of the Invention" and Section 2 "Summary of the Invention"), "allows to avoid" instead of "allows one to avoid" (see Page 3), the term "WebBrowser" (see page 5), and the term "unvention" (see page 6). Appropriate correction is required.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claim 13 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 13 claims "A computer program for execution..." Computer code alone constitutes "functional descriptive material" and as such, is not statutory subject matter. Functional descriptive material becomes statutory when it "...is recorded on some computer-readable medium..." (see the Manual of Patent Examining Procedure 2106). Even though Claim 13 includes the references "...in a data

processing system..." and "...said computer program code portions executed on a computer," these phrases, as written in the claim, do not define the computer program as material stored on a computer-readable medium. Instead, the phrase "...for execution in a data processing system..." characterizes the program as capable of and intended for execution in a data processing system, rather than as functional descriptive material that is "functionally interrelated to the medium." Likewise, the phrase "...when said computer program code portions are executed on a computer..." only further defines the claim to computer program code that is currently executing and also fails to define the claim as functional descriptive material functionally interrelated to the medium.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1, 5-11, 13, and 14 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Padmanabhan et. al. "Using Predictive Prefetching to Improve World Wide Web Latency" (see the attached Notice of References Cited).

11. With respect to Claim 1 and Claim 14, Padmanabhan et. al. disclose:

A communication method between a server and a client computing device in which responsive to client requests the requested contents are delivered from said server via a network to said client computing device, comprising the step of: in response to a current request delivering additional non-requested contents being associated with the content of the current request in predetermined traffic situations, said non-requested contents having a probability to be desired subsequently to the current request which is higher in relation to that of other contents being associated as well with the content of the current request (see Section 1 "Introduction").

12. With respect to Claim 5, Padmanabhan et. al. disclose the limitations of Claim 1 as noted above, and further disclose:

determining said non-requested contents from an evaluation of statistics tracking the access probability of a plurality of different contents having each an association to the currently requested content (see Section 3 "Predictive Prefetching" and Section 3.2 "Prediction Algorithm").

13. With respect to Claim 6, Padmanabhan et. al. disclose the limitations of Claim 5 as noted above, and further teach creating a weighted graph that tracks access records in order to predict future accesses within a certain time frame. Thus, Padmanabhan et. al. disclose:

The method according to Claim 5 in which said statistics are based on weighted graph calculations, the contents being represented as nodes, the linkages being represented as vertices, and the access probability being tracked as a vertex weight attribute (see Section 3.2 "Prediction Algorithm").

14. With regards to Claim 7, Padmanabhan et. al. disclose the limitations of Claim 1 as noted above, and further disclose:

Receiving transmission time information associated to particular requests, and evaluating it as a feedback information (see Section 4 "Experimental Methodology," as well as Figure 4).

15. With respect to Claim 8, Padmanabhan et. al. disclose the limitations of Claim 1 as noted above, and further discloses:

The method according to Claim 1 used for delivering web pages from an Internet server computer (see Section 1 "Introduction").

16. With regards to Claim 10, Padmanabhan et. al. disclose the limitations of Claim 1 as noted above, as well as:

A server computer system having installed program means implementing means for determining and delivering non-requested contents according to the method of Claim 1 (see Section 3.1 "Architecture of the System with Prefetching").

17. With respect to Claim 11, Padmanabhan et. al. disclose the limitations of Claim 1 as noted above, as well as:

An intermediate server computer system switched between a server computer system according to Claim 1 and client computer system and having installed program means implementing means for receiving and buffering non-requested contents and for sequentially providing said contents to a client computer system not being able to process additional contents with a respective request (see Section 6 "Discussion").

18. With regards to Claim 14, Padmanabhan et. al. disclose the limitations of Claim 1 as noted above, as well as:

A computer program product stored on a computer usable medium comprising computer readable program means for causing a computer to perform the method of Claim 1, when said computer program product is executed on a computer (see Section 1 "Introduction" and Section 3.1 "Architecture of the System with Prefetching").

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 2135

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

21. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Padmanabhan et. al., in view of Jiang et al. "Adaptive Prefetching for Computer Network and Web Browsing with a Graphic User Interface" (US Pat. No. 6,385,641 B1). Padmanabhan et. al. disclose the prioritizing and/or withholding additional, non-requested content (see Section 3.1 "Architecture of the System with Prefetching," Section 4.2 "Retrieval Model," and Section 7 "Conclusions), but not basing this decision on the current load of the server or a predetermined threshold. Jiang et al., however, teach determining a threshold for a server and delivering additional contents only when the server's current load is below that threshold (see Jiang et. al.: column 6, lines 33-39 and lines 48-57). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the method of Padmanabhan et. al. with the invention of Jiang et. al. in order to increase the efficiency of the network content server.

22. Claim 3 is rejected under 25 U.S.C. 103(a) as being unpatentable over Padmanabhan et. al., in view of Jiang et. al. As noted above, Padmanabhan et. al. disclose the prioritizing and/or withholding additional, non-requested content, but not basing this decision on the current usage of the computer's processor, or the current request rate. Jiang et. al., however, do teach using system loads and capacities to determine if additional content should be transmitted (see Jiang et. al.: column 6, lines 36-57). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the method of Padmanabhan et. al. with the invention of Jiang et. al. in order to increase the efficiency of the network content server.

23. Claim 4 is rejected under 25 U.S.C. 103(a) as being unpatentable over Padmanabhan et. al., in view of Jiang et. al. As noted above, Padmanabhan et. al. disclose the prioritizing and/or withholding additional, non-requested content, but not delivering additional content when server load is low. Jiang et. al., on the other hand, specifically note that delivering additional content should increase indirectly with server load (see Jiang et. al.: column 6, lines 52-55). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Padmanabhan et. al.'s method with the invention of Jiang et. al. in order to prevent overloading the network content server in Padmanabhan et. al.

24. Claim 9 rejected under 35 U.S.C. 103(a) as being unpatentable over Padmanabhan et. al., in view of Tuah et. al. "Investigation of a Prefetch Model for Low

Bandwidth Networks” (see the attached Notice of References Cited). Padmanabhan et. al. disclose the use of a communication method between a client and server that delivers additional non-requested material to the client along with the requested contents in a process they call “prefetching documents.” Padmanabhan et. al. teach using this method to access the World Wide Web (WWW), but do not teach the use of this method to access pages in the Wireless Markup Language. Tuah et. al., however, disclose the use of mobile computer users using prefetching to access data wirelessly. WML is a standard language used to access websites via mobile wireless clients. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Padmanabhan et. al.’s method with Tuah et. al.’s wireless prefetching using Wireless Markup Language in order to allow wireless clients to access web pages written in a standard language.

25. Claim 12 rejected under 35 U.S.C. 103(a) as being unpatentable over Padmanabhan et. al. Padmanabhan et. al. teaches the limitations of Claim 1 as noted above, as well as a client computer system having installed program means implementing means for receiving and buffering non-requested contents delivered according to the method of Claim 1 (see see Section 3.1 “Architecture of the System with Prefetching” and Figure 2). Padmanabhan et. al. however, does not disclose the actual implementation of the system. It would have been obvious of one of ordinary skill in the art to implement the teaching of Padmanabhan et. al.

Conclusion

26. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. This includes: Palmer "Predictive Cache System" (US Pat. No. 5,305,389), Mogul "Method for Predictive Prefetching of Information Over a Communications Network" (US Pat. No. 5,802,292), Fan et. al. "Web Prefetching Between Low-Bandwidth Clients and Proxies: Potential and Performance" (see the attached Notice of References Cited), and Bestavros "Using Speculation to Reduce Server Load and Service Time on the WWW" and "Speculative Data Dissemination and Service to Reduce Server Load, Network Traffic and Service Time in Distributed Information Systems" (see the attached Notice of References Cited).


Any inquiry concerning this communication or earlier communications from the examiner should be directed to John F Gianola whose telephone number is (703) 605-4321. The examiner can normally be reached on Mon - Fri (8:30 - 5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on (703) 305-4393. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

In October of 2004, Technology Center 2100 will be relocating to the US Patent and Trademark Office's facility in Alexandria, VA. After that date, calls to John F Gianola

should be directed to (571) 272-3848. Likewise, the telephone number for Technology Center 2100 will change to (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


JACK B. HARVEY
SUPERVISORY PATENT EXAMINER

jfg